

**Owner's Manual** 

#### The Handbook

The instructions in this handbook are designed to provide a clear and simple guide to use your new vehicle. The handbook contains information regarding maintenance work and periodic checks that should be performed.

You will also find instructions for several simple repair jobs you can do yourself. All operations not explicitly described in the handbook require the use of special tools and or specific technical skills and should be preformed exclusively by an authorized Rad2Go dealer.

Areas of text highlight with the symbols shown on the next page contain important information regarding use of the vehicle and road safety.

#### Symbols For The Correct Use Of Your New Vehicle

The symbols on the page are important.

They highlight area of the handbook that deserve special attention. The three symbols are distinctive so that information can be quickly located.



**Personal Safety** WARNING Failure to observe these instructions will result in serious risk of personal injury or even death.

### **R**Environmental Respect

Sections marked with this symbol indicated the correct use of the vehicle in full respect of your natural surroundings.



Vehicle Safety CAUTION

Failure to observe these instructions will result in the risk of serious damage to the vehicle and, in certain cases, may invalidate the warranty.

#### **General Safety Rules**

#### Foreword

This manual is an important and integral part of your vehicle. Keep it with your vehicle at all times and when vehicle is resold.

If you have any questions any questions about your vehicle, contact Rad2Go or an authorized Rad2Go dealer.

#### **Carbon Monoxide**

If it is necessary to let the engine run in order to carry out some work, make sure that the area in which you are operating is properly ventilated. Never run the engine in enclosed spaces. If it is necessary to work indoors, use an exhaust evacuation system.

## Marning Warning

The exhaust fumes contain carbon monoxide, a poisonous gas that can cause loss of consciousness and even death.

### Fuel Warning

Gasoline is extremely flammable and in some conditions can become explosive. Therefore, it is necessary to refuel and carry out maintenance operations involving the fuel system in a well-ventilated area with the engine off. Do not refuel or perform any maintenance on the fuel system with the engine running.

Do not smoke while refueling or near fuel vapors.

Never allow any portion of the fuel system to come in contact with open flames, sparks, and/or other heat sources.

Be careful to avoid spilling fuel when you are refueling. Spilled fuel could ignite when it contacts hot engine or exhaust system surfaces. If you accidentally spill some fuel make sure that it is wiped up or completely evaporated before staring the vehicle. Since gasoline expands in the fuel tank when the vehicle is sitting in the open sun, never fill tank completely to the brim. Leave at least one inch of expansion space. Avoid any contact of the fuel with your skin, and avoid inhalation of fuel vapors. Do not ever attempt to siphon fuel from one container to another using your mouth as suction for a siphon hose. Use a manual pump or a similar system.



Gasoline is poisonous and carcinogen and contains chemical substances that cause birth defects and other reproductive problems. If gasoline should be accidentally spilled on the skin or clothes, immediately wash it off with soap and water and change clothes.

Should you accidentally spill gasoline in your eyes, flush with a large quality of water and immediately contact a health professional. Should you accidentally get gasoline into your mouth, do not induce vomiting. Drink a large quantity of milk or clear water and immediately contact a health professional.

If your vehicle overturns, it may leak gasoline, which is extremely flammable. Flames or sparks may ignite the gasoline, which will not only destroy the vehicle but could also do serious property damage to surrounding property and cause serious injuries or even death.

DISPOSE OF UNWANTED GASOLINE PROPERLY, DO NOT DUMP IT INTO STROM DRAINS, SINKS OR TOILETS.

KEEP GASOLINE AWAY FORM CHILDREN.

# HOT COMPONENTS WARNING

The engine and all parts of the exhaust system, as well as the braking system, become very hot and remain hot for some time after the motor scooter and the engine are stopped.

Before handling any components of your motor scooter after riding, ensure that it has cooled sufficiently to be safe to handle.

### HIGH VOLTAGE CABLE WARNING

Starting the engine, while keeping in your hands the high voltage cable disconnected from the spark plug, is extremely dangerous.

## COOLING FAN WARNING

Keep your finger and other body parts, as well as any other objects, well clear of the cooling fan when the engine is running. Failure to observe this warning can cause damage to your engine, as well as cause serious injury to you.

# **A**REAR WHEEL WARNING

Be vary careful to keep your fingers, all your other body, and any object well clear of the rear wheel while the engine is running and the vehicle is resting on its stand. Failure to observe this warning can lead to serious personal injury, as well as damage your engine.

# SHOCK-ABSORBERS WARNING

Do not disassemble the front and rear shock-absorbers. The shock-absorbers have preloaded springs. Disassembly can cause serious injury and even death.

### **BATTERY HYDROGEN GAS AND ELECTROLYTE WARNING**

Vehicle batteries give off noxious and explosive gases; keep cigarettes, flames and sparks away from the battery.

Provide adequate ventilation when operating or recharging the battery. During recharging or use, make sure that the room is properly ventilated and avoid inhaling the gases released during the recharging.

The battery contains sulphuric acid (electrolyte). Contact with the skin or eyes may cause serious burns. Always wear protective clothing, rubber gloves, and tight fitted goggles or a face shield when working around the battery, especially when filling the battery with either water or electrolytes.

In case of contact with the skin, flush immediately with plenty of water. In case of contact with the eyes, flush with plenty of water for at least 15 minutes. Immediately consult a health professional.

The electrolytes are poisonous.

If the electrolyte is accidentally swallowed, drink large quantities of water or milk and then follow with magnesia, beaten egg or vegetable oil. Immediately consult a health professional.

KEEP AWAY FROM CHILDREN.



Before starting the engine, carefully read this manual and in particular the chapters "PERSONAL SAFETY – ENVIRONMENTAL RESPECT – VEHICLE SAFETY" Your safety and that of those around you depends not only on your skills as a rider, but also your knowledge about your motorscooter and about riding safety. Therefore, it is essential that you so not operate your vehicle on public streets until you have received instruction from a qualified safety organization such as the Motorcycle Safety Foundation, and are properly trained and licensed.

#### **REPORTING OF DEFECTS THAT AFFECT SAFETY**

If you believe that your motorscooter has a defect, which could cause an accident or could cause injury or death, you should inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Rad2Go by calling tool free 1-800-498-8455. If NHTSA receives similar complaints, it may open an investigation and if it finds that a safety defect exists in a group of motorscooters, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your Dealer or Rad2Go. To contact NHTSA, you may either call the Auto Safety Hotline toll free at 1-800-424-9393 (or 366-0123 in the Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590.

You can also obtain other information about motorcycle safety from the Hotline.

#### **ROAD REGULATIONS AND USE OF THE MOTORSCOOTER**

Rules of the road may vary from country to country or state to state. It is essential that you understand in advance the rules of the road of the country or of the state in which your vehicle will be used.



This motorscooter has been designed and produced for use on even and paved roads or surfaces only.

Do not use the motorscooter on unpaved surfaces, in order to avoid overturning or other accidents.



Rad2Go recommends you not ride your motorscooter on stare or national highways, freeways, or expressways.

#### NOISE EMISSION WARRANTY

Rad2Go warrants that this exhaust system, at the time of sale, meets all applicable U.S. EPA Federal noise standards. This warranty covers the first person who buys this exhaust system for purposes other than resale, and to all subsequent buyers.

Warranty claims should be directed to: Rad2Go, Inc. 6231 Yarrow Drive, Suite C San Diego, CA 92009 Toll free number 1-800-498-8455.

### INFORMATION ON THE NOISE AND EXHAUST GAS EMISSION CONTROL SYSTEM

#### ORIGIN OF THE EMISSIONS

The combustion process produces carbon monoxide and hydrocarbons, the control of hydrocarbons is very important, because under certain conditions they react to exposure to sunlight and product photochemical smog. Carbon monoxide does not react in the same way, but it is toxic and poisonous. Rad2Go utilizes "lean" carburetor settings to reduce the production of carbon monoxide and hydrocarbons.

#### EXHAUST EMISSION CONTROL SYSTEM

The Exhaust Emission Control System requires "lean" carburetor settings and no adjustments should be made, except idle speed adjustments by means of the appropriate screw.



Tampering with the noise control system is prohibited. Federal law prohibits the following acts:

a) Removal or rendering inoperative by any person other then for the purpose of maintenance, repair, or replacement, and devise or element of design incorporated into any new motorscooter for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use, or

b) Use of the motorscooter after such a devise or element of design has been removed or rendered inoperative by any person. Among those acts presumed to constitute tampering are the acts listed below:

a) Removal of, or puncturing the muffler, baffles, header pipes, or any other component which conducts exhaust gases.

b) Removal or puncturing of any part of the intake system.

c) Lack of proper maintenance.

d) Replacement of any moving parts of the motorscooter, or parts of the exhaust or intake system, with parts other than those specified by Rad2Go.



The vehicle should be checked for repair or replacement if the motorscooter noise has increased significantly through use. Otherwise, the owner may become subject to penalties under state and local ordinances.

#### PROBLEMS THAT MAY AFFECT THE MOTORSCOOTER EMISSIONS

If any of the following symptoms are observed, immediately have your motorscooter inspected and repaired by your Rad2Go dealer or Authorized Rad2Go Service Center.

Symptoms:

-Difficulty starting or stalling after staring.

-Irregular idle.

- -Misfiring or backfiring during acceleration.
- -After-burning (backfiring).
- -Poor engine performance degraded handling, or poor fuel economy.

#### **PROTECTIVE CLOTHING**

For your safety, we strongly recommend that your always wear an approved motorcycle helmet, eye protection, boots, gloves, long pants, and long-sleeved shirt or jacket whenever you ride. Although complete protection is not possible, wearing proper gear can reduce the change of injury.

#### **HELMETS AND EYE PROTECTION**

Your helmet is your most important piece of riding gear because it offers the best protection against head injuries. A helmet should fit your head comfortably and

securely. A bright-colored helmet can make you more noticeable in traffic, as can reflective strips.

An open-faced helmet offers some protection, but a full-faced helmet offers more. Always remember to properly fasten your crash helmet. Regardless of the style, look for a DOT (Department Of Transportation) sticker in any helmet you buy (USA only), and always wear a face shield or goggles to protect your eyes and help your vision.

#### ADDITIONAL RIDING GEAR

In addition to a helmet and eye protection, we also recommend:

- Properly fitted boots with non-slip soles to help protect your feet and ankles.
- Leather gloves to keep your hands warm and help prevent blisters, cuts, burns and bruises.
- A motorcycle riding suite or jacket for comfort as well as for protection.

Brightly colored and reflective clothing can help make you more noticeable in traffic. Be sure to avoid loose clothes that could get caught on any part of your motorscooter.

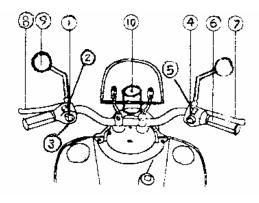
#### **INSIDE SEAT COMPARTMENT**

- 1. TOOL KIT (black plastic bag)
  - Screwdriver
  - Two piece spark plug remover
  - Two sided wrench
- 2. MSO CERTIFICATE
- **3. BATTERY**
- 4. REAR VIEW MIRRORS

### **Initial Start**

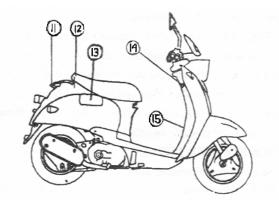
- **1.** Add 1 CAP of *two stroke* injector oil to 1gal. Gasoline. Mix together and pour into gas tank. This will lubricate your motor for the initial start up.
- 2.Fill the oil tank located on the right hand side of the vehicle under the seat with *two stroke* injector oil.

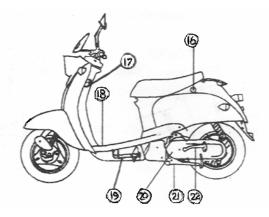
### 2. <u>VEHICLE PARTS</u>



#### **INSTRUMENT PANEL**

**1.**Turn Signal Indicator (Left Controller) 2. High beam/dipped beam selector (Left Control) **3.** Horn (Left Controller) 4. Start Button (Right Controller) 5. Engine Stop Switch (Right Controller) **6.** Throttle (Right Controller) 7. Front Brake Lever (Right Controller) 8. Rear Brake Lever (Left Controller) 9. Rear View Mirror **10.** Speedometer





#### **LEFT SIDE OF VEHICLE**

 Luggage Rack
 Fuel Cap
 Oil Tank
 Ignition
 Keyhole for Storage Compartment

#### **RIGHT SIDE OF VEHICLE**

16. Keyhole for Storage Compartment
17. Engine Indicator Box
18. Battery Compartment
19. Single Side Kickstand
20. Engine
21. Center Stand
22. Kick starter



Do not turn the key to "**LOCK**". This will inevitably lead to an upset, with subsequent serious accident, and serious injury or even death. Leave the key in the on position while riding. Do not attempt to turn it until the scooter has stopped.

#### **TURN INDICATOR**

To activate the left hand turn indicators, press the selector to the left, for the right hand turn indicator press it to the right. The selector automatically returns to the center position when released to the center position while riding. Do not attempt to turn it until the scooter has stopped.

**ENGINE SWITCH** Bottom = Engine run Top = Engine off

**DIP/FULL BEAM SELECTOR** Bottom = Dipped beam Top = High beam

HORN

**STARTER BUTTON** 

Used batteries are harmful for the environment. Take used batteries to your nearest collection point for disposal as prescribed by law.

#### KEYS

The motorscooter is supplied with two keys (one spare) that serve to start the engine and unlock the saddle compartment.

#### NOTE

Keep the duplicate key separate from the motorscooter.

The serial numbers are made up of a code stamped into the frame and the engine. Check that the frame number on the vehicle is identical to the number shown in the owner's handbook.

Defacing factory serial numbers is a serious criminal offense and can lead to confiscation of the vehicle or other penalties.



In all states and countries, it is against the law to alter the Vehicle Identification Number (VIN) and can result in severe penalties. This will immediately invalidate your warranty.

#### **BEFORE USING YOUR MOTORSCOOTER CHECK:**

- 1. That the fuel and oil tanks are adequately filled.
- 2. Rear hub oil level.
- 3. Tire inflation pressure
- 4. Lights and turn indicators.
- 5. Front and rear brakes.

#### NOTE

Check inflation pressure with tires cold.

#### TIRE PRESSURE

Front: 36 PSI Rear: 36 PSI

#### REFUELING

Fill fuel tank with unleaded gasoline. Minimum octane rating (M+R)/2 method 90. The rider is informed when fuel is low by the fuel warning light on the instrument panel.

Fill the engine oil tank with Selenia HI Scooter 2 Tech.

The rider is informed when engine two-stroke oil is low by the oil warning light on the instrument panel.

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Before refueling, stop the engine. Gasoline is highly flammable. Keep it away from hot engine parts. Failure to heed this warning can lead to a serious fire.

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Fire hazard: keep open flames, lighted cigarettes, etc. well clear of the fuel tank killer opening.

When minimum oil level is reached a warning light on the instrument panel will illuminate to remind you to add at least .1 -.2 gal of new engine two-stroke oil at the next refuel (do not travel more then 80 miles with the warning light on). Every time the ignition key is sent to the "**ON**" position the engine two-stroke oil warning light must come on for a few seconds (test function). If the warning light fails to illuminate, contact a Rad2Go service technician.



Use only the recommended types of oil. Use of inferior oil will lead to reduced engine life and can lead to an engine seizure, with subsequent upset, serious accident, and serious injury, or even death.



During the first 625 miles (1,000 km) keep to within 80% of full throttle opening. Do not undertake long journeys at constant speed. After the first 625 miles (1,000 km) you can start to increase speed gradually up to the maximum (within the limits of the law and in accordance with road and traffic conditions). Your Milan is equipped with an automatic transmission system and with centrifugal clutch. Always start the engine with the throttle rotated fully clockwise; that is, at idle position. Gradually accelerate to pull away.

Please note that this motorscooter has a fuel line tap and a choke, which are automatically controlled when the starter button is pressed.

#### STARTING THE ENGINE

- A. Place the vehicle on center stand and check that the rear tire is not touching the ground.
- B. Keep the throttle closed.
- C. Move the engine stop to the "ON" position.
- D. Insert the ignition key and turn it to "ON".
- E. Pull rear brake lever or front brake lever and then press starter button.
- F. If the battery is discharged, or if the motorscooter electrical system is not working properly, use the kick-starter.

#### **STOPPING THE ENGINE**

When the vehicle is stopped with the engine idling turn the ignition key to "OFF" (key can now be extracted). Use the center stand to support the motorscooter while parked.

Park the motorscooter on firm, level ground to prevent it from falling. Lock the steering to help prevent theft.



Never attempt to start your engine with the throttle in the open position. This can lead to runaway, with upset, and subsequent serious injury, or even death.



Use the engine stop switch only if the engine runs away. It is for emergency use only. Once the switch is activated, your motorscooter will slow very abruptly. Only in case of emergency the engine stop switch should be used while the motorscooter is running.



Never attempt to place the ignition switch in the locked position while the motorscooter is moving. This will cause loss of control of the motorscooter with possible subsequent accident, serious injury or even death.



Do not place anything inside the front part of the fairing between the handlebar and dashboard. Any object placed in this area could jam the forks, and also could restrict visibility of the dashboard.



Never take your hands off the handgrips or your feet off the footrest while you are riding.

Failure to do this could upset the stability of the vehicle.

Before riding away, make sure that the stand is completely up.

Failure to follow these warnings may cause an accident with consequent risk of serious injury or even death.

To ride away:

- Allow the throttle to return to idle, apply the rear brake, and then remove the vehicle from the stand.
- Get on the vehicle, keeping at least one foot on the ground in order not to lose balance.
- Before driving, be sure that the review mirrors are correctly adjusted.



When the vehicle is new to you, practice looking in the rear view mirrors. Only experience will allow you to correctly determine the exact location of other vehicles and objects behind you.

- To begin, release the brake lever and accelerate by gently rotating the throttle grip; the vehicle will start moving.
- Ride at reduced speed for the first few miles in order to warm up the engine.



Never ride away abruptly with a cold engine.

To reduce the emission of polluting substances and the consumption of fuel, warm up the engine by proceeding at a low speed for the first few miles.



When braking, close the throttle and apply both brakes simultaneously in order to obtain the best brake performance.

By applying only the front brake or only the rear brake, you reduce the braking efficiency considerably, and run the risk of locking up one wheel. This can cause an upset and subsequent injury or even death.

Do not attempt to maintain your position on a hill by running the engine. This will very quickly destroy the transmission, and overheat the engine.

Before entering a turn, slow the motorscooter using the brakes, to a constant speed and then accelerate slightly through the turn. Avoid braking at the last moment. This can cause you to lose control of your vehicle.

If the brakes are operating continuously on downhill grades, the disc and pads will overheat, reducing the brake efficiency. Use the brakes as little as possible to maintain a safe speed. Never coast downhill with the engine off.



On roads that are wet or covered with snow, ice or mud, ride very slowly, avoiding braking, or accelerating or maneuvering quickly. Hold the handlebar firmly.

Failure to heed these warnings can cause an upset with subsequent serious injury or death.

Pay very close attention to any obstacles or variations of the road surface. Uneven roads, rail, manholes covers, painted traffic stripes, traffic dots all become slippery when wet. Avoid particularly steel plates, which are sometimes used during road maintenance. They become more slippery than ice once they are wet by rain. If you must ride on such surfaces, decrease your speed and operate the throttle, brakes, and steering very gently.

Always use the turn signals any time you intend to change lanes or change direction, and avoid sudden or abrupt turning.

Switch off the direction indicators as soon as you have changed directions.

Overtake and pass with care, especially in rainy weather. A water cloud created by larger vehicles will reduce visibility and the slipstream could cause you to lose control of your vehicle.



Exhaust fumes are noxious: do not start the engine in an enclosed place.

Possible causes for engine starting difficultly and suggested action.

1. Carburetor flooded.

Go through the steps described below. Open the throttle fully and press starter button five or six times. Do not keep the button pressed for more then 5 seconds at a time.

2. Battery flat (except vehicle provided with the immobilizer system) Put the motorscooter on its stand and make sure that the rear tire is not touching the ground. Bring the ignition key to the "ON" position and use kick-starter.



If using the kick-starter is necessary please read the following instructions in order to avoid injuries:

- Use the kick-starter only with sturdy footwear (i.e. low heel, rubber sole).
- Place the vehicle on the center stand.
- Move to the left side of the vehicle.
- Move the engine stop switch to the "ON" position.
- Make sure the dimmer switch is the low beam position.
- Rotate the ignition key to the "ON" position.

To avoid losing control of your vehicle while you start it:

- Firmly hold the rear rack pack with your right hand.
- Place your right foot on the kick-starter and push down until you feel that the kick-starter is properly engaged. The kick-starter is properly engaged when the lever is in the highest position and offers the strongest resistance.
- When the kick-starter is properly engaged, push the lever down swiftly to start the vehicle.
- If necessary, repeat operation until the engine starts.



Do not depress the kick-starter while the engine is running.

#### 3. Fuel tank empty.

Refuel. Start the engine, pressing the starter button while keeping the throttle closed to generate maximum suction on the fuel line.

#### 4. Engine too hot.

Follow the standard engine start procedure above, but keep the throttle slightly open.



Always put the vehicle on its stand before kick starting.

Failure to observe this warning can lead to serous personal injury, as well as damage to your motorscooter.

#### AUTOMATIC TRANSMISSION

For easy and comfortable riding, your new vehicle has automatic transmission with a centrifugal clutch. This system is designed to provide optimal fuel consumption and acceleration by adjusting the transmission ratio in relation to torque demands and engine speed. If you need to stop on a hill gradient (traffic light, tailbacks etc.) restrain the vehicle with the brakes alone (engine should be idling). Using the engine to hold the vehicle can cause the clutch to overheat. Overheating is caused by prolonged slipping of the centrifugal clutch. Apart form the examples above, the clutch will tend to slip when tacking very steep gradient with a heavily laden vehicle or when starting up on gradients greater then 35%. When carrying a passenger (in countries where this is permitted by law) the maximum gradient the scooter can tackle is 25%.

- 1. Limit the duration of extreme conditions such as the above.
- 2. Allow the engine to idle for a few minutes to give the clutch time to cool.



Failure to follow these simple recommendations can damage your motorscooter, and lead to an accident, with subsequent serious injury, or even death. The life of your motorscooter, and your enjoyment of it, will be greatly enhanced if you avoid situations in which the motorscooter will be abused by attempting to carry too heavy a load, or starting on too steep a hill.

Your riding skill and a through knowledge of your vehicle are basic ingredients of road safety. Practice riding in a traffic free area until you are fully in control under various different conditions.

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Never ride under the influence of alcohol or drugs as this dangerous for yourself or others.

### BE SURE TO RIDE SAFELY, DEFENSIVELY AND WITHIN THE LIMITS OF THE LAW AND YOUR ABILITIES.

- Before starting, put on an approved helmet and secure the straps correctly.
- Reduce speed on unsurfaced roads or uneven ground and exercise the maximum caution.
- Riding in the rain or on wet roads can cause the brakes of your motorscooter to become wet. When this happens, their effectiveness will be greatly reduced. In these conditions, gently activate the brakes regularly, to dry the brakes, and so that you may check the braking action.
- Use extreme caution when braking on wet roads, unsurfaced roads or any other slippery surfaced.

- Always use both brakes simultaneously to distribute braking force over both wheels.
- Do not start off by mounting the motorscooter when it is on the stand. Before taking the vehicle off the stand make sure the rear is not spinning.
- When your motorscooter is used on sandy, muddy, salty, or snow covered roads, periodically clean the brake disc with a gentle cleaning agent. This will avoid the build-up of abrasive material in the slots in the disc, which will cause early and uneven brake pad wear.
- Do not modify your motorscooter in any way. This motorscooter is carefully engineered to provide optimum performance and safety. You will only reduce its utility and your enjoyment of the motorscooter by modifying it.



Over-braking on a slippery surface will lead to upset, an accident, and subsequent injury or possibly even death.

#### **BASIC SAFETY RULES**

The instructions below cover normal operation of your motorscooter and must be carefully observed. By following these rules you will enhance your own safety and the safety of others. You will also maximize the life and utility of your motorscooter. Motorscooters obviously do not provide some of the protection provided by automobiles, therefore it is essential that you wear appropriate, therefore it is essential that you wear appropriate, therefore it is essential that you wear the appropriate protective clothing. Never operate your motorscooter without wearing a helmet, gloves, eye protection, a heavy jacket, sturdy footwear, and sturdy full length pants.

However, do not assume that even the best clothing and helmet will protect you in the event of an upset or a crash with another vehicle. At best, this gear provides some protection from scrapes and scratches, but very little, if any, impact protection. Be sure that you meet all the requirements prescribed by local law, including the driver's license, minimum age, training, insurance, taxes, motorcycle registration, license pates, etc.

When you first receive your motorscooter, practice by riding in areas where there is no traffic. Do not attempt to ride in heavy traffic until you are thoroughly experienced and riding your motorscooter has become second nature to you. Most states prohibit the operation of this size of motorscooter on freeways or expressways. Be sure that it is legal to use your motorscooter before you take any particular road.

A new motorscooter must be carefully broken in.

Before starting the engine, make sure that the brakes, transmission and throttle controls function properly and that the fuel and oil supply is adequate.

The exhaust system, brakes, and some other parts of the motorscooter become very hot during operation. Do not touch any of these parts.

Some medicines or drugs, illegal or prescription, and alcohol significantly increase the risk of accidents.

Do not ride while you are under the influence of alcohol or drugs, whether they are illegal or prescription. Make sure you are in good physical condition and not ill before riding your motorscooter. Do not ride your motorscooter when you are particularly tired. Alcohol, drugs, and fatigue are the leading causes of motorscooter accidents.

Many accidents are caused by the rider's inexperience and lack of training. Do not ride your motorscooter until you have received training form a recognized training organization such as the Motorcycle Safety Foundation.

Remember that riding a motorscooter, though easy and fun, is quite different from driving a car. Do not assume that you can operate your motorscooter safely just because you are a competent automobile driver.

Never lend your motorscooter to others unless you are sure that they are competent and properly licensed motorcycle operators.

If the throttle sticks open, it may cause a collision with another vehicle or an upset. If the throttle sticks, turn off the engine with the engine stop switch located on the right hand side of the handlebar. Do not attempt to restart the engine until the throttle has been repaired and works perfectly. Failure to obey this warning can lead to a run away with serious injuries or even death.



In case of emergency always use the engine stop switch located on the right hand side of the handlebar. Do not ride the motorscooter if the throttle does not automatically return to idle. Contact Rad2Go service technician who will provide for the necessary repairs.

It is very important to your safety that you give full attention to the riding task, watch what you are doing, do not allow yourself to be distracted by other cars, people or things on the roadside, etc. Never smoke, eat, drink, read, etc. while riding your motorscooter.

If you must consult a map, pull over when it can be done safely.

Use only your motorscooter's specific fuels and lubricants, and check the oil, fuel and coolant levels regularly.

If you and your motorscooter are involved in an accident, ensure that there has been no damage to the control levers. Tubes, wires, braking system and other vital parts. If your motorscooter is involved in an accident, contact a Rad2Go service technician who has the equipment and knowledge to check for damage, which may compromise your safety.

Do not use your motorscooter if it is damaged.

A damaged motorscooter may become unstable or present other problems, which can increase the risk of accident, and therefore serious injury or even death.

Do not attempt to modify the position, angle or color of your license plate. Do not cover it with even a clear plastic covering.

Do not modify any of the safety equipment of your motorscooter, especially such safety related items as directional indicators, rear view mirrors, lights or horn. Any modification to your motorscooter will invalidate the warranty.

Do not modify you r engine in an attempt to increase the horsepower. This can result in irreparable damage to the engine, as well as degradation of the performance and handling of your motorscooter, which could leas to an upset, and serious injury or even death.

Have your motorscooter repaired only with original parts, and use only original Rad2Go accessories.

The use of aftermarket accessories and parts can seriously compromise the safety of your motorscooter as well as affect its performance, stability and serviceability. Any modification, which affects performance or safety, voids your warranty completely. For reasons stated above, tampering with the exhaust emission or noise control system of your motorscooter can lead to large fines. Also, in some jurisdictions, helmets are required by law, and in all jurisdictions, you must maintain your motorcycle in current registration (license plate up-to-date). Also, many jurisdictions require a special motorcycle license, and you must not ride your motorscooter without having first obtained this license.

This motorscooter was not designed to be equipped with a sidecar or to be used to tow trailers, motorcycles, motorscooters or bicycles.

Rad2Go does not manufacture sidecars or trailers and therefore cannot predict the effects of such accessories on the maneuverability or stability of your motorscooter: it can only warn that such effects may be negative and that any damage to the motorscooter components caused by the use of such accessories will not be covered by the warranty.

Never race other motorscooters or motorcycles with your motorscooter. Brake with both the front and rear brakes.

The use of one brake only for sudden braking may cause the motorscooter to skid or make the rider lose control of the motorscooter itself.

Always ride at a safe speed and avoid unnecessary hard acceleration.

This also reduces fuel consumption and increases the life of the motorscooter. If you must ride your motorscooter in rainy weather, or on loose surfaces, remember that traction is greatly reduced. Under these conditions, all handling of the motorscooter must be done gradually and smoothly. Sudden acceleration, braking or turning may cause you to lose control of your motorscooter. When traction is reduced, accelerate gradually and when slowing down release throttle and use your motorscooter engine braking in so far as possible, instead of braking in so far as possible, instead of braking abruptly.

Avoid rapid, harsh application of the brakes.

Gradually open and close the throttle, to avoid spinning or skidding the rear wheel. On rough road surfaces, slow down and ride with particular care. Avoid wide-open throttle acceleration, unless they are necessary for passing.

Remember that excessively aggressive corning can cause your motorscooter's tire to lose traction, which can result in an upset and serious injury or even death.

Always observe posted and statutory speed limits, but do not assume that you can ride as fast as the speed limit allows under all road conditions. Slowing does a little can greatly increase your safety under all road conditions.

Do not ride you motorscooter off road.

Do not tamper with the muffler system or the emissions control system of your motorscooter. This is not only bad for the environment; it can subject you to serious penalties.

#### CLOTHING

Before riding your motorscooter, ensure that your riding gear is in good condition. Your helmet must fit properly, and the visor or other eye protection must be clean. Both research and experience have shown that drivers of other motorcycles often do not see motorcycles riders. In order to make yourself more conspicuous to these drivers, wear bright reflective clothing, such as a reflective vest, or clothing with reflective sections sewn into the jacket, pants and gloves. Be particularly aware of approaching automobiles and trucks that might be trying to turn left in front of you. Many motorcycle accidents are caused by an opposing automobile driver making a left turn without warning in front of the motorscooter. Inevitably, the driver will look right at you, and yet swear that they did not see you before they turned directly into your path. Stay alert!

Wear protective clothing, preferably in light and/or reflective colors. In this way you will make yourself more visible to the other drivers, thus notably reducing the risk of being hit, and you will be more protected in case of such an incident.

Always wear your helmet. Many accidents are fatal because of injuries to the head.

An open-face helmet offers some protection, but a full-face helmet offers more. Regardless of the style, look for a DOT (Department of Transportation) sticker in any helmet you buy (USA Only,) and always wear a face shield or goggles to protect your eyes and help your vision.

#### ADDITIONAL RIDING GEAR

In addition to a helmet and eye protection, we also recommend:

- Sturdy boots with non-slip soles to help protect your feet and ankles.
- Leather gloves to keep your hands warm, and help prevent blisters, cuts, burns, and bruises.
- A motorscooter riding suit or jacket for comfort as well as protection. Bright colored and protective clothing can help make you more noticeable in traffic. Be sure to avoid loose clothes that could get caught on any part of your motorscooter.

Clothing should be very tight-fitting and fastened at the wrists and ankles. String, belts and ties should not be hanging loose; prevent these and other objects from interfering with driving by getting entangled with moving parts or driving mechanisms.

Do not carry sharp objects in your pockets that could be dangerous in case of an upset. For example, pens or mechanical pencils, etc. Also, make sure that your passengers follow this recommendation.

#### ACCESSORIES

The owner of the motorscooter is responsible for the choice, installation and use of any accessory.

The installation of inappropriate accessories or the overloading of the motorscooter may result in the instability of the motorscooter itself and cause accidents with consequent risk of serious injuries or even death. Windshields, in particular, can be dangerous, as they can break and injure the rider or passenger in case of an accident. If you have any doubt with regard to any accessory you would like to install, or any load you would like to carry, consult your local Rad2go dealer beforehand. Avoid installing accessories that cover horns or lights, or that could impair their functions. Don't install accessories that limit the suspension stroke or the steering angle, that interfere with the operations of the controls, or that reduce the scooter's lean angle in turns. Also, don't install accessories that could hamper your access to the various controls, since this could prolong reaction time during an emergency. Fairings and windshields, or any other accessory that presents a considerable cross section, may

produce aerodynamic forces that will affect the stability of the motorscooter, particularly at high speeds or in cross winds.

Make sure that anything carried on your motorscooter is securely attached and cannot come lose and jam the wheels, forks, etc.

Do not install any electrical accessories, and do not modify the electrical system of your motorscooter. Anything that could cause an electrical overload or other fault could cause the motorscooter to suddenly stop, the lights to dim or fail, or the horn and other safety accessories not to work.

#### LOAD

Do not overload your motorscooter. Attach luggage or packages as closely as possible to the center of your motorscooter and distribute the load from side to side as evenly as possible, to keep imbalance to a minimum. Remember that loads tend to loosen with riding, so frequently check the security of your load.

Do not hang anything from your motorscooter handlebar, fenders, or forks, because this will upset the handling of your motorscooter, and could prevent you from avoiding an accident.

Failure to heed this warning can lead to an upset with subsequent serious injury or even death. Do not ride with your crash helmet hung from the strap because it could easily become entangled with the wheels, fenders, or forks, causing an upset and subsequent serious injury or even death. When carrying a passenger, remember that your motorscooter's handling is degraded, that the brakes are less efficient, and the center of gravity is higher and further to the rear.

This makes it more likely that the front wheel will come up off the ground, especially on acceleration. Therefore, you should avoid hard acceleration and hard braking. Many accidents are caused by inexperienced riders carrying passengers.

Remember that allowance must be made for the extra weight of the passenger for all driving maneuvers. Avoid abrupt and excessive acceleration. Always slow down in time and calculate longer stopping and maneuvering distances. Non-compliance with these instructions may lead to the overturning of the motorscooter or to other accidents with consequent serious injuries or even death. Never carry loosely packaged items and make sure that everything that you carry on your motorscooter is carefully secured.

Do not carry packages which protrude from the luggage rack or which cover any of the signal lights, the headlight, or the horn.

Children or animals must not be carried anywhere on your motorscooter.

Overloading you motorscooter seriously reduces its stability and maneuverability and can lead to an upset with subsequent serious injury or death.



Running your motorscooter with insufficient or unsuitable oil in the rear hub causes rapid wear of the moving parts, and can result in irreparable damage. It can also result in a seizure, which can lead to an upset, with subsequent serious accident, injury, or even death.

**\*\***Used oil is harmful for the environment. We recommend taking the scooter to an **Authorized Rad2go Service Center** for oil changes. Our service centers are properly equipped for the disposal of used oil respecting the environment and in compliance with the law.

#### **Tire Pressure**

36 psi

Periodically check the inflation pressure of the front and rear tires.

Check for cuts on the tire walls and uneven tread wear. Tires must be changed by your local Rad2go Dealer or by an Authorized Rad2go Service Center.

#### TIRE REPAIR

If a tire is punctured or damaged, you should replace it not repair it. As discussed below, a tire that is repaired, either temporarily or permanently, will have lower speed and performance limits than a new tire. A temporary repair, such as an external tubeless tire plug, may not be safe for normal speeds and riding conditions. If a temporary or emergency repair is made to a tire, you should ride slowly and cautiously to a Service Center and have the tire replaced. If possible, you should not carry a passenger or cargo until a new tire is installed.

Even when a tire is professionally repaired with a permanent internal patchy plug, it will not be as good as a new tire. In addition, you may not be able to safely carry as much weight as with a new tire. Therefore, we strongly recommend that you replace a damaged tire. If you choose to have a tire repaired, be sure the wheel is balanced before you ride.



Using tires that are excessively worn or improperly inflated can cause an accident in which you can be seriously hurt or killed. Follow all instructions in this owner's manual regarding tire inflation and maintenance. Rad2Go recommends you to always use original tires as replaced.



Incorrect tire inflation pressure causes uneven tread wear and will make your scooter unstable and potentially dangerous. You must never ride a scooter on a tire with a tread depth of less then 0.1 in (2 mm). Do not use the scooter if the tire wear indicators show that the tire is worn out.

There are several kinds of tread wear indicators. If the tires appear to you to be worn out, they certainly are, and should be changed.

#### FRONT AND REAR BRAKE ADJUSTMENT



Check your brakes often to ensure proper braking capabilities.

1. The free movement of the front and rear brake lever should be one half inch to 1in. to adjust this turn the nut clockwise and continue checking the lever until satisfactory.

#### **SPARK PLUG**

Remove cover by unscrewing the relevant screw. Remove the plug lead and unscrew the plug with the supplied spark plug wrench. When refitting the plug it should be hand-tightened initially. Be sure to engage the threads properly by holding the plug at the correct angle. Use the spark plug wrench to tighten the plug fully.

Refit the shielded plug cap carefully. If you need to access the spark plug when the engine is hot, to avoid the risk of burning the hands work from above by tipping open the saddle and removing the helmet compartment.

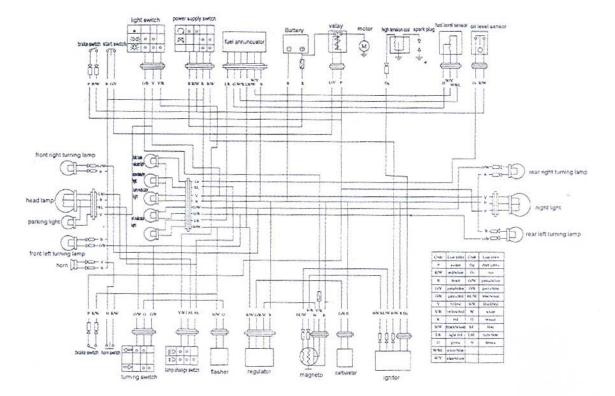
Refit the cover, taking care to engage the interlocking tabs in the lower part of the body panel, and secure with the screw.



The spark plug should be removed only when the engine is cold and wearing protective gloves.

The use of spark plugs with a heat range other then the prescribed type or with incorrect thread size can result in serious damage to the engine.

#### Milan WIRING DIAGRAM





When working on the electrical system, pay special attention to the correct connection of wires leading to the electronic ignition unit and observe the polarity and connector color-coding.

Modifications or unsuitable repairs of the electrical system can cause malfunctions and represent a serious fire.

\*This version is equipped with a voltage regulator that incorporates the flasher unit and engine two stoke oil level check transmitter.

#### BATTERY

To access the battery unscrew the 2 screws on the floorboard. See instructions inside the battery box.

The battery must be inspected and serviced regularly.

#### ELECTROLYTE LEVEL CHECK

Check regularly that the electrolyte is at maximum level. Top off only with distilled water.

If the battery needs topping up too frequently, check the vehicle electrics (the battery is probably working in overload conditions which will lead to rapid deterioration).

#### STORAGE

If the motorscooter is not to be used for prolonged periods, the battery must be charged periodically (when not in use, the battery will discharge over a period of 3 months). If the battery is removed, when you reinstall the battery make sure you connect the positive (+) and negative (-) leads to the correct terminal. Inverting battery polarity can damage electrical components.



Never open the caps of maintenance free batteries (containing gel). This will destroy the battery.

Batteries contain environmentally toxic substances. When you need to change the battery, contact a Rad2Go service technician to ensure your used battery is disposed of without harming the environment and in compliance with the law.



Risk of damage to electrical system. Never disconnect the battery when the engine is running.



Electrolytes contain sulphuric acid. Avoid contact with the skin, the eyes, and clothing. In case of contact with the skin or the eyes rinse the affected area with plenty of water and consult a doctor. So not lean the scooter over too far or electrolytes may spill from the battery. Keep open flames and sparks away from the battery: explosion and fire hazard.

#### **FUSES**

Before changing a burnt-out fuse, find and remedy the problem that caused it to blow. Do not substitute the fuse with any alternative form of conductor.

#### TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	ACTION	
Difficulty starting	Fuel tank empty.	Refuel.	
	Filters, jets or carburetor dirty.	Contact a Rad2Go service technician.	
	Dead battery.	Kick-starter. Install new battery.	
Irregular firing	No spark on spark plug. Danger: high voltage. This inspection should be carried out by a skilled mechanic.	Contact a Rad2Go service technician.	
Poor compression	Spark plug bore thread damaged; head bolts insufficiently torqued; worn piston ring.	Contact a Rad2Go service technician.	
High fuel consumption and poor performance	Dirty air filter.	Clean with water and neutral detergent and lubricate.	
Poor braking action	Oil on brake drum or disc. Worn pads/shoes.	Contact a Rad2Go service technician.	
	Front and rear Brake incorrectly adjusted.	Contact a Rad2Go service technician.	
Poor suspension	Oil leak; worn stroke end bumpers; worn shock absorber attachment points.	Contact a Rad2Go service technician.	
Irregular operation of automatic transmission	Worn roller case or drive belt.	Contact a Rad2Go service technician.	

#### SCHEDULED MAINTENANCE

Proper servicing of your motorscooter is necessary for it to achieve its normal lifetime, and to maintain its performance. Any problems that you encounter should be immediately discussed with a Rad2Go service technician.

Item	1000KM	40000KM	8000KM	12000KM
Fuel line		Ι	Ι	Ι
Throttle operation		Ι	Ι	Ι
Air filter	С	С	R	С
Spark plug		Ι	R	Ι
Engine oil	R	500KM R		
Engine oil filter net				С
Idle speed of	Ι	Ι	Ι	Ι
carburetor				
Brake system	Ι	Ι	Ι	Ι
Drive Belt	1000KM I, L			
Braking lamp switch		Ι	Ι	Ι
Head lamp standard		Ι	Ι	Ι
Suspension system		Ι	Ι	Ι
Nuts, bolt. Tightening	Ι		Ι	
elements				
Wheel, type		Ι	Ι	Ι
Turning bearing	Ι			Ι

I: Check, clean, adjust, lubricate if needed or change

C: Clean

R: Change

#### **TECHNICAL SPECIFICATIONS**

1. LENGTH	64.8"
2. WIDTH	24.4"
3. HEIGHT	43.3"
4. WHEEL BASE	45.5
5. NET WEIGHT	154lbs
6. MIN. GROUND CLEARANCE	2.75"
7. ENGINE STYLE	Single, Two stroke, air – cooled
8. ENGINE TYPE	QJ1E40QMB
9. STROKE X BORE	1.6" X 1.5"
10. DISPLACEMENT	49.8cc
11. ACTUAL DISPLACEMENT	50cc
12. MAX POWER	2.57KW / 9000r/min
13. DEMARCATED POWER	2.06KW / 6000r/min
14. FRONT AND REAR BRAKE	Drum
15. FRONT AND REAR TIRE	90/90 – 10 * 35psi
16. OIL CAPACITY	1L
17. FUEL TANK CAPACITY	1.32 gal.
18. MAX SPEED	31 mph
19. CLIMBING CAPACITY	up to 8°
20. DRIVE BELT STYLE	V belt, c.v.t.
21. IGNITION STYLE	CDI
22. COMPRESSION RATIO	6. 9: 1
23. STARTER	Electric & Kick start
24. CLUTCH	Dry / Centrifugal
25. LOAD WEIGHT	195lbs